

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: November 5, 1996
Date Received: October 31, 1996
Project: Metro Self Monitor, PO #M55101
Date Samples Extracted: November 1, 1996
Date Extracts Analyzed: November 1, 1996

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, AND ZINC
USING METHOD 6010**

**Samples Processed Using Method 3005A
Results Reported as mg/L (ppm)**

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M55101	0.13	0.08	0.09	<0.05
Method Blank	<0.05	<0.05	<0.05	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: November 5, 1996

Date Received: October 31, 1996

Project: Metro Self Monitor, PO #M55101

QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 73636 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.13	0.14	7a	0-20
Copper	mg/L (ppm)	0.08	0.08	0a	0-20
Nickel	mg/L (ppm)	0.09	0.08	12a	0-20
Zinc	mg/L (ppm)	<0.05	<0.05	nm	0-20

Laboratory Code: 73636 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recovery MS MSD		Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	0.13	95	97	80-120	2
Copper	mg/L (ppm)	5	0.08	91	91	80-120	0
Nickel	mg/L (ppm)	10	0.09	95	97	80-120	2
Zinc	mg/L (ppm)	5	<0.05	98	102	80-120	4

Laboratory Code: Spike Blank

Analyte:	Reporting Units	Spike Level	% Recovery MS MSD		Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	102	102	80-120	0
Copper	mg/L (ppm)	5	96	94	80-120	2
Nickel	mg/L (ppm)	10	103	102	80-120	1
Zinc	mg/L (ppm)	5	106	106	80-120	0


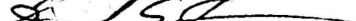
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

KNJ AI
10.31.96
1:45

Send Report To: Alaskan Copper Works Contact GERALD Thompson
Company 628 HANFORD ST
Address City, State, Zip Seattle WA 98134
City, State, Zip (206) 382-8375
Phone # Date 10-31-56

[illegible]

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: 	Gerald Thompson	ACLU	10/31/96	1:45pm
Received by: 	S. Oborn	F+B, Inc.	10/31/96	1:45
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Beth M. Albertson, M.S.
Bradley T. Benson
Kelley D. Wilt

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044

November 5, 1996

**INVOICE # 96ACU1105-1
DUPLICATE COPY**

Accounts Payable
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

RE: Project Metro Self Monitor, PO #M55101: Results of testing requested by
Gerry Thompson, Project Manager for material submitted on October 31,
1996.

1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due

\$ 65.00

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Beth M. Albertson, M.S.
Bradley T. Benson
Kelley D. Wilt

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044

November 5, 1996

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on October 31, 1996 from your Metro Self Monitor, PO #M55101 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

A handwritten signature in black ink, appearing to read 'Kurt Johnson', with a stylized flourish at the end.

Kurt Johnson
Chemist

keh
Enclosures
ACU1105R.DOC